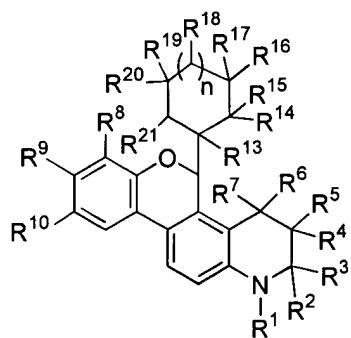


What is claimed is:

1. A compound of the formula:



(I)

5

wherein:

R^1 is selected from the group of hydrogen, C_1 – C_4 alkyl, C_1 – C_4 haloalkyl, C_1 – C_4 heteroalkyl, COR^{11} , CO_2R^{11} , SO_2R^{11} , and $CONR^{11}R^{12}$;

R^2 and R^3 each independently is selected from the group of hydrogen, C_1-C_6 alkyl, and C_1-C_6 haloalkyl; or

R^2 and R^3 taken together form a cycloalkyl ring of from three to twelve carbons:

R^4 through R^7 each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

15 R^5 and R^7 taken together form a bond; or

R^6 and R^7 taken together are selected from the group of methylidene, mono-substituted methylidene, di-substituted methylidene and carbonyl;

R^8 through R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, I, NO₂, CN, OR¹¹, NR¹¹R¹², SR¹¹, COR¹¹, CO₂R¹¹, CONR¹¹R¹², C₁–C₈ alkyl,
5 C₁–C₈ heteroalkyl, C₁–C₈ haloalkyl, allyl, C₂–C₈ alkenyl and C₂–C₈ alkynyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C₁–C₄ alkyl, C₁–C₄ heteroalkyl, and C₁–C₄ haloalkyl;

R^{13} is hydrogen; or

R^{13} and R^{14} taken together form a bond;

10 R^{14} through R^{20} each independently is selected from the group of hydrogen, F, Cl, Br, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R^{14} and R^{15} taken together are selected from the group of methylidene, carbonyl and thiocarbonyl; or

R^{16} and R^{17} taken together are selected from the group of methylidene,
15 mono-substituted methylidene, di-substituted methylidene, ethylidene, carbonyl and thiocarbonyl; or

R^{14} and R^{16} taken together form a bond or “–O–” bridge; or

R^{16} and R^{18} taken together form a bond when n is 1; or

R^{16} and R^{19} taken together form a bond when n is 0;

R^{21} is hydrogen; or

R^{21} and R^{20} taken together form a bond;

n is 0, 1, 2, or 3;

5 or a pharmaceutically acceptable salt or prodrug thereof.

2. A compound according to claim 1, wherein R^1 is selected from the group of hydrogen, C_1 – C_4 alkyl, COR^{11} , SO_2R^{11} , and $CONR^{11}R^{12}$.

3. A compound according to claim 1, wherein R^2 and R^3 each independently is selected from the group of C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl.

10 4. A compound according to claim 1, wherein

R^5 and R^7 taken together form a bond;

R^4 and R^6 each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl.

5. A compound according to claim 1, wherein

15 R^6 and R^7 taken together are selected from the group of methyldene, and carbonyl;

R^4 and R^5 each independently is selected from the group of hydrogen, F, and C_1 – C_4 alkyl.

6. A compound according to claim 1, wherein R^8 through R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, NO_2 , CN, OR^{11} ,
5 SR^{11} , C_1 – C_6 alkyl, C_1 – C_6 heteroalkyl, and C_1 – C_6 haloalkyl.

7. A compound according to claim 6, wherein R^8 through R^{10} each independently is selected from the group of hydrogen, F, and OR^{11} .

8. A compound according to claim 1, wherein R^{11} through R^{12} each independently is selected from the group of hydrogen, and C_1 – C_4 alkyl.

10 9. A compound according to claim 1, wherein
 R^{14} and R^{16} taken together form a bond or “–O–” bridge;
 R^{15} , R^{17} , R^{18} , R^{19} , R^{20} each independently is selected from the group of hydrogen, F, Cl, C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl.

10. A compound according to claim 1, wherein
15 R^{16} and R^{17} taken together are selected from the group of methyldene, mono-substituted methyldene, ethyldene and di-substituted methyldene;
 R^{14} , R^{15} , R^{18} , R^{19} , R^{20} each independently is selected from the group of hydrogen, F, Cl, C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl.

11. A compound according to claim 1, wherein

R^{16} and R^{18} taken together form a bond when n is 1; or

R^{16} and R^{19} taken together form a bond when n is 0;

R^{14} , R^{15} , R^{17} , R^{20} each independently is selected from the group of hydrogen,

5 F, Cl, C_1-C_4 alkyl, and C_1-C_4 haloalkyl.

12. A compound according to claim 1, wherein said compound is

selected from the group of:

(\pm) -(5*I,1'7*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-
trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 24);

10 (\pm) -(5*I,1'7*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-
trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 25);

$(+)$ -(5*I,1'7*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-
trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 27);

15 $(-)$ -(5*I,1'7*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-
trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 28);

(\pm) -(5*I,1'7*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-
trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 29);

(\pm)-(5*I*,1'*u*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 30);

(+)-(5*I*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 32);

5 (-)-(5*I*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 33);

(\pm)-(5*I*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 34);

(\pm)-(5*I*,1'*u*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 35);

10 (+)-(5*I*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 37);

(-)-(5*I*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 38);

15 (\pm)-(5*I*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-methoxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 39);

(\pm)-(5*I*,1'*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2-dimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 41);

(\pm)-(5*I, I'**u*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2-dimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 42);

(\pm)-(5*I, I'**l*)-5-(3-methyl-2-cyclopentenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 44);

5 (\pm)-(5*I, I'**u*)-5-(3-methyl-2-cyclopentenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 45);

(\pm)-(5*I, I'**l*)-5-(3,5,5-trimethyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 47);

(\pm)-(5*I, I'**u*)-5-(3,5,5-trimethyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 48);

10 (\pm)-(5*I, I'**l*)-5-(3-methyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 50);

(\pm)-(5*I, I'**u*)-5-(3-methyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 51);

15 (\pm)-5-(3-methyl-3-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 52);

(\pm)-5-(2-cyclopenta-1,3-dienyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 53);

(\pm)-(5*l*,1*l*)-5-(3-ethyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **55**);

(\pm)-(5*l*,1*u*)-5-(3-ethyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **56**);

5 (\pm)-(5*l*,1*l*)-5-(3-methyl-2-cyclohexenyl)-7-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **58**);

(\pm)-(5*l*,1*u*)-5-(3-methyl-2-cyclohexenyl)-7-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **59**);

(\pm)-(5*l*,1*l*)-5-(3-ethyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **61**);

10 (\pm)-(5*l*,1*l*)-5-(3-ethylidene-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **62**);

(\pm)-(5*l*,1*l*)-5-(3-methyl-3-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **63**);

15 (\pm)-(5*l*,1*l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-8-methoxy-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **64**);

(\pm)-(5*l*,1*u*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-8-methoxy-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound **65**);

(\pm)-(5*l*,1*l*)-5-(2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 67);

(\pm)-(5*l*,1*u*)-5-(2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 68);

5 (\pm)-5-(1-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 69);

(\pm)-(5*l*,1*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 71);

(+)-(5*l*,1*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 73);

10 (-)-(5*l*,1*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 74);

(\pm)-(5*l*,1*l*)-5-(2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 75);

15 (\pm)-(5*l*,1*u*)-5-(2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 76);

(\pm)-(5*l*,1*l*)-5-(2-cyclohexenyl)-7,9-difluoro-1,2,3,4-tetrahydro-2,2-dimethyl-4-methylidene-5*H*-chromeno[3,4-*f*]quinoline (compound 77);

(\pm)-(5*l,1'l*)-5-(2-methylidenecyclohexyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 79);

(\pm)-(5*l,1'u*)-5-(2-methylidenecyclohexyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 80);

5 (\pm)-(5*l,1'l*)-5-(2-oxocyclohexyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 81);

(\pm)-(5*l,1'u*)-5-(2-oxocyclohexyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 82);

10 (\pm)-(5*l,1'l*)-5-(3-methyl-2-cyclohexenyl)-9-methoxy-1,2-dihydro-1,2,2,4-tetramethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 83);

(\pm)-5-(2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 84);

(\pm)-(5*l,1'l*)-5-(2,3-dimethyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 85);

15 (\pm)-5-(3-methylidene-cyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 87);

(\pm)-(5*l,1'u*)-5-(3-ethylidenecyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 88);

(\pm)-(5*l,1'l*)- 5-(2-cycloheptenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-f]quinoline (**Compound 89**);

(\pm)-(5*l,1'l*)- 5-(2-cyclooctenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-f]quinoline (**Compound 91**);

5 (\pm)-(5*l,1'u*)- 5-(2-cyclooctenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-f]quinoline (**Compound 92**);

(\pm)-(5*l,1'l*)- 5-(2,3-epoxy-3-methylcyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-f]quinoline (**Compound 94**);

(\pm)-(5*l,1'l*)- 5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2,3,4-tetrahydro-10 2,2-dimethyl-4-methylene-5*H*-chromeno[3,4-f]quinolin-3-ol (**Compound 95**);

(\pm)-(5*l,1'l*)- 5-(2,3-epoxy-2,3-dimethylcyclopentyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-f]quinoline (**Compound 96**);

(\pm)-(5*l,1'u*)- 5-(2,3-epoxy-3-methylcyclohexyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-f]quinoline (**Compound 97**); and

15 (\pm)-(5*l,1'l*)- 5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2,3,4-tetrahydro-2,2-dimethyl-5*H*-chromeno[3,4-f]quinolin-4-one (**Compound 98**).

13. A compound according to claim 1, wherein said compound is selected from the group of:

(\pm)-(5*l,1'l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 24);

(-)-(5*l,1'l*)-5-(3-methyl-2-cyclohexenyl)-9-fluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 28);

5 (-)-(5*l,1'l*)-5-(3-methyl-2-cyclohexenyl)-9-hydroxy-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 33);

(\pm)-(5*l,1'l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 34);

10 (-)-(5*l,1'u*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 35);

(-)-(5*l,1'l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 38);

(\pm)-(5*l,1'l*)-5-(3-methyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 50);

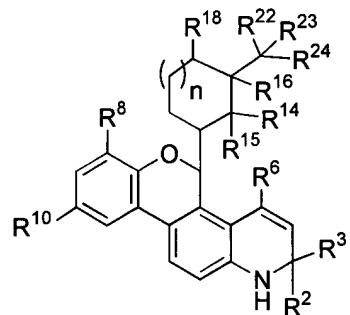
15 (-)-(5*l,1'u*)-5-(3-methyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 51);

(\pm)-(5*l,1'l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 71);

(-)-(5*l*,1*l*)-5-(2,3-dimethyl-2-cyclopentenyl)-7,9-difluoro-1,2-dihydro-2,2,4-trimethyl-5*H*-chromeno[3,4-*f*]quinoline (compound 74); and

(±)-(5*l*,1*l*)-5-(3-methyl-2-cyclohexenyl)-7,9-difluoro-1,2,3,4-tetrahydro-2,2-dimethyl-5*H*-chromeno[3,4-*f*]quinolin-4-one (Compound 98).

5 14. A compound of the formula:



(II)

wherein:

R² and R³ each independently is selected from the group of hydrogen, C₁–C₄ alkyl, and C₁–C₄ haloalkyl;

R⁶ is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C₁–C₄ alkyl, and C₁–C₄ haloalkyl;

R⁸ and R¹⁰ each independently is selected from the group consisting of hydrogen, F, Cl, Br, CN, OR¹¹, NR¹¹R¹², SR¹¹, COR¹¹, C₁–C₄ alkyl, C₁–C₄ heteroalkyl, C₁–C₄ haloalkyl, allyl, and C₂–C₄ alkenyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1-C_4 alkyl, C_1-C_4 heteroalkyl, and C_1-C_4 haloalkyl;

R^{14} , R^{15} , R^{18} , R^{22} , R^{23} , R^{24} each independently is selected from the group of hydrogen, F, Cl, OR¹¹, C_1-C_4 alkyl, C_1-C_4 haloalkyl, and C_1-C_4 heteroalkyl;

5 R^{22} , R^{23} , R^{24} together consists of not more than 3 carbon atoms;

R^{16} taken together with one of R^{14} , R^{18} , and R^{22} form a bond or “—O—” bridge;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

10 15. A compound according to claim 14, wherein

R^2 and R^3 each independently is selected from the group of C_1-C_4 alkyl;

R^6 is selected from the group of F, Cl, Br, C_1-C_4 alkyl, and C_1-C_4 haloalkyl;

R^8 and R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR¹¹, C_1-C_4 alkyl, and C_1-C_4 haloalkyl;

15 R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1-C_4 alkyl;

R^{14} , R^{15} , R^{18} , R^{22} , R^{23} , R^{24} each independently is selected from the group of hydrogen, F, C_1 – C_4 alkyl;

R^{16} taken together with one of R^{14} , R^{18} , and R^{22} form a bond or “–O–” bridge;

5 n is 0, 1, or 2.

16. A compound according to claim 15, wherein

R^2 and R^3 each independently is CH_3 ;

R^6 is selected from the group of F, Cl, Br, CH_3 , CH_2CH_3 , and CF_3 ;

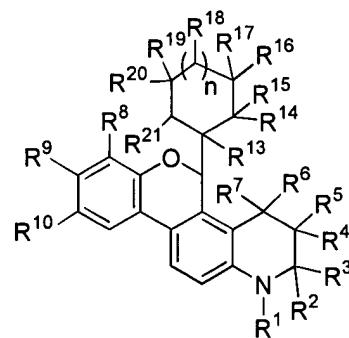
R^8 is hydrogen or F;

10 R^{10} is selected from the group of hydrogen, F, Cl, Br, CN, OH, OCH_3 , CH_3 , CH_2CH_3 , and CF_3 ;

R^{14} and R^{16} taken together form a bond or “–O–” bridge;

R^{15} , R^{18} , R^{22} , R^{23} , and R^{24} each independently is hydrogen or CH_3 .

17. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of formula:



(I)

wherein:

5 R^1 is selected from the group of hydrogen, C_1 – C_4 alkyl, C_1 – C_4 haloalkyl, C_1 – C_4 heteroalkyl, COR^{11} , CO_2R^{11} , SO_2R^{11} , and $CONR^{11}R^{12}$;

R^2 and R^3 each independently is selected from the group of hydrogen, C_1 – C_6 alkyl, and C_1 – C_6 haloalkyl; or

R^2 and R^3 taken together form a cycloalkyl ring of from three to twelve
10 carbons;

R^4 through R^7 each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1 – C_4 alkyl, C_1 – C_4 haloalkyl, and C_1 – C_4 heteroalkyl; or

R^5 and R^7 taken together form a bond; or

R^6 and R^7 taken together are selected from the group of methylidene, mono-
15 substituted methylidene, di-substituted methylidene and carbonyl;

R^8 through R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, I, NO_2 , CN , OR^{11} , $NR^{11}R^{12}$, SR^{11} , COR^{11} , CO_2R^{11} , $CONR^{11}R^{12}$, C_1-C_8 alkyl, C_1-C_8 heteroalkyl, C_1-C_8 haloalkyl, allyl, C_2-C_8 alkenyl and C_2-C_8 alkynyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1-C_4 alkyl, C_1-C_4 heteroalkyl, and C_1-C_4 haloalkyl;

5 R^{13} is hydrogen; or

R^{13} and R^{14} taken together form a bond;

R^{14} through R^{20} each independently is selected from the group of hydrogen, F, Cl, Br, OR^{11} , C_1-C_4 alkyl, C_1-C_4 haloalkyl, and C_1-C_4 heteroalkyl; or

10 R^{14} and R^{15} taken together are selected from the group of methyldene, carbonyl and thiocarbonyl; or

R^{16} and R^{17} taken together are selected from the group of methyldene, mono-substituted methyldene, di-substituted methyldene, ethyldene, carbonyl and thiocarbonyl; or

15 R^{14} and R^{16} taken together form a bond or “-O-” bridge; or

R^{16} and R^{18} taken together form a bond when n is 1; or

R^{16} and R^{19} taken together form a bond when n is 0;

R^{21} is hydrogen; or

R^{21} and R^{20} taken together form a bond;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

18. A pharmaceutical composition according to claim 17, wherein R^1 is
5 selected from the group of hydrogen, C_1 – C_4 alkyl, COR^{11} , SO_2R^{11} , and $CONR^{11}R^{12}$.

19. A pharmaceutical composition according to claim 17, wherein R^2 and
 R^3 each independently is selected from the group of C_1 – C_4 alkyl, and C_1 – C_4
haloalkyl.

20. A pharmaceutical composition according to claim 17, wherein
10 R^5 and R^7 taken together form a bond;
 R^4 and R^6 each independently is selected from the group of hydrogen, F, Cl,
Br, CN, OR^{11} , C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl.
21. A pharmaceutical composition according to claim 17, wherein
15 R^6 and R^7 taken together are selected from the group of methyldene, and
carbonyl;
 R^4 and R^5 each independently is selected from the group of hydrogen, F, and
 C_1 – C_4 alkyl.

22. A pharmaceutical composition according to claim 17, wherein R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, Cl, Br, NO₂, CN, OR¹¹, SR¹¹, C₁–C₆ alkyl, C₁–C₆ heteroalkyl, and C₁–C₆ haloalkyl.

23. A pharmaceutical composition according to claim 22, wherein R⁸ through R¹⁰ each independently is selected from the group of hydrogen, F, and OR¹¹.

24. A pharmaceutical composition according to claim 17, wherein R¹¹ through R¹² each independently is selected from the group of hydrogen, and C₁–C₄ alkyl.

25. A pharmaceutical composition according to claim 17, wherein R¹⁴ and R¹⁶ taken together form a bond or “–O–” bridge; R¹⁵, R¹⁷, R¹⁸, R¹⁹, R²⁰ each independently is selected from the group of hydrogen, F, Cl, C₁–C₄ alkyl, and C₁–C₄ haloalkyl.

26. A pharmaceutical composition according to claim 17, wherein R¹⁶ and R¹⁷ taken together are selected from the group of methyldene, mono-substituted methyldene, ethylidene, and di-substituted methyldene; R¹⁴, R¹⁵, R¹⁸, R¹⁹, R²⁰ each independently is selected from the group of hydrogen, F, Cl, C₁–C₄ alkyl, and C₁–C₄ haloalkyl.

27. A pharmaceutical composition according to claim 17, wherein

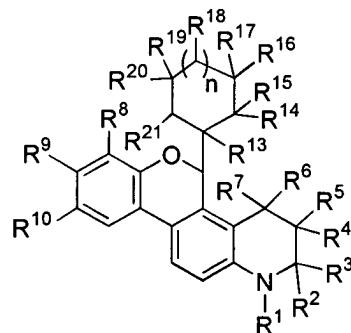
R^{16} and R^{18} taken together form a bond when n is 1; or

R^{16} and R^{19} taken together form a bond when n is 0;

R^{14} , R^{15} , R^{17} , R^{20} each independently is selected from the group of hydrogen, F, Cl, C_1 – C_4 alkyl, and C_1 – C_4 haloalkyl.

5 28. A method of treating an individual having a condition mediated by a progesterone receptor comprising administering to said individual a pharmaceutically effective amount of a compound according to any one of claims 1, 12 or 14.

10 29. A method of treating an individual having a condition mediated by a progesterone receptor comprising administering to said individual a pharmaceutically effective amount of a compound represented by formula (I):



(I)

15 wherein:

R^1 is selected from the group of hydrogen, C_1 – C_4 alkyl, C_1 – C_4 haloalkyl, C_1 – C_4 heteroalkyl, COR^{11} , CO_2R^{11} , SO_2R^{11} , and $CONR^{11}R^{12}$;

R^2 and R^3 each independently is selected from the group of hydrogen, C_1 – C_6 alkyl, and C_1 – C_6 haloalkyl; or

5 R^2 and R^3 taken together form a cycloalkyl ring of from three to twelve carbons;

R^4 through R^7 each independently is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1 – C_4 alkyl, C_1 – C_4 haloalkyl, and C_1 – C_4 heteroalkyl; or

R^5 and R^7 taken together form a bond; or

10 R^6 and R^7 taken together are selected from the group of methylidene, mono-substituted methylidene, di-substituted methylidene and carbonyl;

R^8 through R^{10} each independently is selected from the group of hydrogen, F, Cl, Br, I, NO_2 , CN, OR^{11} , $NR^{11}R^{12}$, SR^{11} , COR^{11} , CO_2R^{11} , $CONR^{11}R^{12}$, C_1 – C_8 alkyl, C_1 – C_8 heteroalkyl, C_1 – C_8 haloalkyl, allyl, C_2 – C_8 alkenyl and C_2 – C_8 alkynyl;

15 R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1 – C_4 alkyl, C_1 – C_4 heteroalkyl, and C_1 – C_4 haloalkyl;

R^{13} is hydrogen; or

R^{13} and R^{14} taken together form a bond;

R^{14} through R^{20} each independently is selected from the group of hydrogen, F, Cl, Br, OR¹¹, C₁–C₄ alkyl, C₁–C₄ haloalkyl, and C₁–C₄ heteroalkyl; or

R^{14} and R^{15} taken together are selected from the group of methyldene, carbonyl and thiocarbonyl; or

5 R^{16} and R^{17} taken together are selected from the group of methyldene, mono-substituted methyldene, di-substituted methyldene, ethylidene, carbonyl and thiocarbonyl; or

R^{14} and R^{16} taken together form a bond or “–O–” bridge; or

R^{16} and R^{18} taken together form a bond when n is 1; or

10 R^{16} and R^{19} taken together form a bond when n is 0;

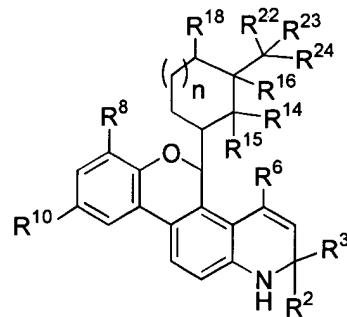
R^{21} is hydrogen; or

R^{21} and R^{20} taken together form a bond;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

15 30. A method of treating an individual having a condition mediated by a progesterone receptor comprising administering to said individual a pharmaceutically effective amount of a compound represented by formula (II):



(II)

wherein:

R^2 and R^3 each independently is selected from the group of hydrogen, C_1 – C_4

5 alkyl, and C_1 – C_4 haloalkyl;

R^6 is selected from the group of hydrogen, F, Cl, Br, CN, OR^{11} , C_1 – C_4 alkyl,

and C_1 – C_4 haloalkyl;

R^8 and R^{10} each independently is selected from the group of hydrogen, F, Cl,

Br, CN, $OR^{11}R^{12}$, SR^{11} , COR^{11} , C_1 – C_4 alkyl, C_1 – C_4 heteroalkyl, C_1 – C_4

10 haloalkyl, allyl, and C_2 – C_4 alkenyl;

R^{11} and R^{12} each is independently selected from the group of hydrogen, C_1 –

C_4 alkyl, C_1 – C_4 heteroalkyl, and C_1 – C_4 haloalkyl;

R^{14} , R^{15} , R^{18} , R^{22} , R^{23} , R^{24} each independently is selected from the group of

hydrogen, F, Cl, OR^{11} , C_1 – C_4 alkyl, C_1 – C_4 haloalkyl, and C_1 – C_4 heteroalkyl;

15 R^{22} , R^{23} , R^{24} together consists of not more than 3 carbon atoms;

R^{16} taken together with one of R^{14} , R^{18} , and R^{22} form a bond or “—O—” bridge;

n is 0, 1, 2, or 3;

or a pharmaceutically acceptable salt or prodrug thereof.

5 31. A method according to claim 28, wherein said condition is selected from the group of dysfunctional uterine bleeding, dysmenorrhea, endometriosis, leiomyomas (uterine fibroids), hot flushes, mood disorders, meningiomas, hormone-dependent cancers and female osteoporosis.

10 32. A method according to claim 28, wherein said condition is alleviated with female hormone replacement therapy.

33. A method of modulating fertility in an individual comprising administering to said individual a pharmaceutically effective amount of a compound according to any one of claims 1, 12 or 14.

15 34. A method of providing contraception to an individual comprising administering to said individual a pharmaceutically effective amount of a compound according to any one of claims 1, 12 or 14.

35. A method of modulating a progesterone receptor in an individual comprising administering to said individual a compound according to any one of claims 1, 12, or 14 in an amount effective to modulate a progesterone receptor.

36. A method according to claim 35, wherein said modulation is activation.

37. A method according to claim 36, wherein said compound provides at least 50% maximal activation of the progesterone receptor at a concentration of less 5 than 100 nM.

38. A method according to claim 36, wherein said compound provides at least 50% maximal activation of the progesterone receptor at a concentration of less than 50 nM.

39. A method according to claim 36, wherein said compound provides at 10 least 50% maximal activation of the progesterone receptor at a concentration of less than 20 nM.

40. A method according to claim 36, wherein said compound provides at least 50% maximal activation of the progesterone receptor at a concentration of less than 10 nM.

15 41. A method of treating cancer, comprising administering to a patient in need thereof an effective amount of a compound according to any one of claims 1, 12 or 14.

42. A method according to claim 41, wherein said cancer is selected from the group of ovarian cancer, breast cancer, endometrium cancer and prostate cancer.

43. A method of determining the presence of a progesterone receptor (PR) in a cell or cell extract comprising (a) labeling a compound according to any one of claims 1, 12 or 14; (b) contacting the cell or cell extract with said labeled compound; and (c) testing the contracted cell or cell extract to determine the presence of progesterone receptor.